REMARKS

Claims 1, 3-4, 7-10, and 14-15 remain for reconsideration. Claims 2, 5, 6, 11-13, and 16-20 have been cancelled without prejudice.

Claims 4 and 11 have been cancelled thus rendering moot the rejection to these claims under 35 U.S.C 112, first paragraph.

The prior art rejections are summarized as follows:

1. Claims 1-3, 7-10,and 14-18 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over US 2001/0021051 to Kim in view of USP 6,271,465 to Lacey.

2. Claims 4 and 11 stand rejected as being unpatentable over Kim and Lacey further in view of US 2002/0080593 to Tsuge.

3. Claims 5, 6, 12, 13, 19, an 20 stand rejected as being unpatentable Kim and Lacey further in view USP 6,687,135 to Kitade.

These rejections are respectfully traversed based on the following discussion.

Briefly, embodiments of the present invention relate to reducing clock jitter in an optical transceiver comprising a receiver and transmitter. The transmitter serializes data, converts it from electrical to optical, and transmits the optical data at speeds of 10 Gbps. At these high speeds, electromagnetic

interference (EMI) from components of the transmitter can cause excessive clock jitter that may lead to data errors. An apparatus and method for reducing clock jitter on a high speed optical transmitter is described. The transmitter comprises an oscillator, a phase lock loop, a serializer, and an electrical-to-optical converter. The oscillator is enclosed in a metal shield to reduce the clock jitter. In one embodiment, the metal shield is soldered to a ground ring of a printed circuit board.

The Examiner has relied on Kim for teaching a basic transceiver including and oscillator. However, Kim fails to disclose enclosing the oscillator in a metal shield. For that feature, the Examiner relies on Lacey which appears to teach a random low-cost EMI shield. The Examiner relies on Tsuge for teaching that the shield may comprise copper. Finally, the Examiner relies on Kitade for teaching that a metal shield may comprise protrusions that enter into holes on a printed circuit board.

Referring to Applicant's Figure 3, the metal shield of the present invention differs from the prior art. In particular, the independent claims have been amended to recite "the metal shield comprises one or more protrusions parallel to the ground ring for attaching the metal shield to the ground ring, and wherein the metal shield comprises one or more protrusions perpendicular to the ground ring that assist in aligning the metal shield to the printed circuit board" (emphasis added).

The parallel protrusions refer to the protrusions 310 in Figure 3 and the

attachment protrusions refer to the positioning protrusions 320 shown in Figure 3. The positioning protrusion may allow for precise alignment of the shield to the circuit board and the attachment protrusions 310 provide for a good solder connection to the circuit board.

This double set of protrusions is not taught or suggested by the prior art of record. The closest prior art of record appears to be Kitade which appears to show, and is relied upon for showing only alignment protrusions (item 6 of Figure 2). However, Kitade nor any other reference shows a shield having both perpendicular alignment protrusions and parallel attachment protrusions.

Referring the Examiner to MPEP § 2143, titled "Basic Requirements for a Prima Facie case of Obviousness", the MPEP mandates that:

"To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine the reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all of the claimed limitations" (emphasis added).

Here, the combination of references fail to make a *prima facie* case of obviousness to the claims as presented since all of the claimed features are not taught and certainly not suggest. As such, it is respectfully requested that the outstanding rejections be withdrawn.

In view of the foregoing, it requested that the application be reconsidered, that claims 1, 3-4, 7-10, and 14-15 be allowed and that the application be passed to issue. Please charge any shortages and credit any overcharges to Intel's Deposit Account number 50-0221.

Respectfully submitted,

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